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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/780,757

02/19/2004

Atsushi Watanabe

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2075

21171 7590 04/12/2007
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EXAMINER

BUKOWCZYK, JEREMY

ART UNIT

PAPER NUMBER

3609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/780,757

Applicant(s)

WATANABE ET AL.

Examiner

Jeremy Bukowczyk

Art Unit

3609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :02/19/2004, 07/21/2004, 03/15/2006.

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because the abstract exceeds 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kelley et al. (4,402,053).

Kelley discloses a workpiece conveying apparatus comprising a robot (col. 1, line 34) having a hand to grip a workpiece (col. 1, lines 47-49) and conveying the workpiece (col. 1, lines 35-38), and a visual sensor (col. 1, lines 62-66). Kelley further discloses an image pick-up means for capturing an image of a characteristic portion of the workpiece that is being conveyed by said robot (col. 8, lines 35-36). Kelley further discloses a position detecting means for detecting, on the basis of an image of the characteristic portion obtained by said image pick-up means, the position of the characteristic portion of the workpiece observed when the image is captured (col. 8, lines 36-38). Kelley further discloses a visual sensor that recognizes the gripped state of said workpiece while the workpiece is being conveyed by the robot, on the basis of the positions of the robot and the characteristic portion of the workpiece observed when the image is captured (col. 8, lines 38-39).

As per claim 3, Kelley discloses a means for storing in advance a predetermined gripped state established by the hand of said robot (col. 10, lines 46-52). Kelley further discloses a means for comparing the predetermined gripped state with the gripped state

Art Unit: 3609

recognized by said visual sensor (col. 8, lines 36-39) to determine an error inherently by determining the hand-workpiece relationship (col. 13, lines 31-32). Kelley inherently discloses the error since an error is needed to make a correction. Kelley further discloses a means for correcting a position to which said robot conveys the workpiece, on the basis of the error (col. 13, lines 33-34).

As per claim 4, Kelley discloses a gripped state is provided by a relative position and posture between an arm tip or said hand of said robot and said workpiece (col. 12, lines 44-53).

As per claim 5, Kelley discloses a means for detecting the positions of the robot observed when the image is captured (col. 10, lines 55-57), and the robot controller comprises means for synchronizing an image pick-up instruction given to said image pick-up means with the detection of the position of the robot, observed when the image is captured, by means of said detecting means (col. 1, lines 67-68 and col. 2, lines 1-5).

As per claim 6, Kelley discloses the imaging instruction synchronized with the detection of the position of the robot observed when the image is captured is repeatedly executed a number of times (col. 14, lines 25-40).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kelley et al. (4,402,053) in view of Kanno (US 6,597,971 B2).

Although Kelley discloses all the claimed elements as mentioned in claim 1, Kelley fails to disclose a means for stopping the robot when the error exceeds a predetermined tolerance limit or means for issuing a signal indicative of a fault.

Kanno in the same field of invention discloses a means for stopping the robot when the error exceeds a predetermined tolerance limit or means for issuing a signal indicative of a fault (col. 6, lines 52-57).

From this teaching of Kanno, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the robot of Kelley to include discloses a means for stopping the robot when the error exceeds a predetermined tolerance limit or means for issuing a signal indicative of a fault of Kanno, in order to avoid the robot damaging the workpiece thereby reducing cost.

8. Although Applicant uses "means for" in the claims 1, 2, 3, and 5 it is the Examiner's position that the "means for" phrases do not invoke 35 U.S.C. §112 6th paragraph. If Applicant concurs, the Examiner respectfully requests Applicant to either amend the claims to remove all instances of "means for" from the claims, or to explicitly state on the record why 35 U.S.C. §112 6th paragraph should not be invoked.

Alternatively, if Applicant desires to invoke 35 U.S.C. §112 6th paragraph, the Examiner respectfully requests Applicant to expressly state their desire on the record. Upon receiving such express invocation of 35 U.S.C. §112 6th paragraph, the "means for" phrases will be interpreted as set forth in the *Supplemental Examination Guidelines*

Art Unit: 3609

for Determining the Applicability of 35 USC 112 6th. (Federal Register Vol. 65, No. 120, June 21, 2000.)

Failure by Applicant in their next response to address the 35 U.S.C. 112 6th paragraph issues in accordance with 37 C.F.R. §1.111(b) or to be non-responsive to this issue entirely will be considered a desire by Applicant *NOT* to invoke 35 U.S.C. §112 6th paragraph. Unless expressly noted otherwise by the Examiner, the preceding discussion on 35 U.S.C. §112 6th paragraph applies to all examined claims currently pending.

Conclusion

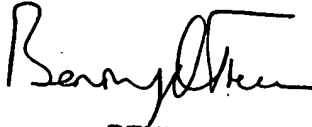
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy Bukowczyk whose telephone number is 571-270-3022. The examiner can normally be reached on Mon-Thu 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynda Jasmin can be reached on 571-270-3033. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3609

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

jb


BENNY TIEU
PRIMARY EXAMINER